

Patent claims

1.-12. (canceled)

13. (new) A method for the automatic configuration of a communications device with a reserved identification number, wherein

at least one network node device is provided for administering a subnetwork of a network, wherein

at least one virtual network comprising at least one subnetwork is provided, wherein the communications device is assigned to the virtual network, wherein data packets exchanged within the virtual network are tagged with a VLAN identification number, the method comprising:

determining of information addressing the subnetwork by a network element arranged in the network,

transmitting a configuration message set with the information addressing the subnetwork from the network element to the network node device,

forwarding the configuration message from the network node device to the virtual network, wherein the configuration message is forwarded as a broadcast message tagged with the VLAN identification number,

receiving the broadcast message by the communications device, and

configuring the communications device on the basis of the VLAN identification number.

14. (new) The method in accordance with claim 13, wherein the network node device is embodied as a router.

15. (new) The method in accordance with claim 13, wherein the information addressing the subnetwork is a directed broadcast address.

16. (new) The method in accordance with claim 14, wherein the information addressing the subnetwork is a directed broadcast address.

17. (new) The method in accordance with claim 13, wherein the information addressing the subnetwork is a network address and/or a network mask.

18. (new) The method in accordance with claim 14, wherein the information addressing the subnetwork is a network address and/or a network mask.

19. (new) The method in accordance with claim 13, wherein a layer-2 network node device is arranged between the network node device and the subnetwork administered by the network node device.

20. (new) The method in accordance with claim 14, wherein a layer-2 network node device is arranged between the network node device and the subnetwork administered by the network node device.

21. (new) The method in accordance with claim 19, wherein data packets sent by the network elements arranged in the subnetwork are only forwarded via the layer-2 network node device if the data packets are tagged with the reserved identification number or if the data packets are untagged.

22. (new) The method in accordance with claim 20, wherein data packets sent by the network elements arranged in the subnetwork are only forwarded via the layer-2 network node device if the data packets are tagged with the reserved identification number

or if the data packets are untagged.

23. (new) The method in accordance with claim 19, wherein the layer-2 network node device comprises a plurality of access units for defining a number of virtual networks each having assigned identification numbers.

24. (new) The method in accordance with claim 21, wherein the layer-2 network node device comprises a plurality of access units for defining a number of virtual networks each having assigned identification numbers.

25. (new) The method in accordance with claim 13, wherein the identification number is entered in a protocol header of the broadcast message in accordance with the IEEE 802.1Q Standard.

26. (new) The method in accordance with claim 13, wherein the identification number is entered into a data part of the configuration message created by the network element.

27. (new) The method in accordance with claim 13, wherein the configuration message is sent at intervals.

28. (new) The method in accordance with claim 13, wherein on failure of the network element of the communications device a message is sent with a tag number to a second network element, wherein

- in the case of no response message being received by the second network element, the send process is repeated by the communications device with a changed tag number, and, wherein
- in the case in which a response message is received by the second network element, the tag number is used as the identification number.

29. (new) The method in accordance with claim 13, wherein the identification number is used in the communications device for configuring a VLAN ID characterizing the virtual network.

30. (new) A method for the automatic configuration of a communications device with a reserved identification number, with

- at least one network node device, by which a subnetwork of a network is administered,
- at least one virtual network, comprising at least one subnetwork, to which the communications device is assigned, with data packets exchanged within the virtual network being tagged with the reserved identification number, comprising the following steps:
  - determination of information addressing the subnetwork by a network element arranged in the network,
  - transfer of a set configuration message with the information addressing the subnetwork from the network element to the network node device,
  - forwarding to the virtual network of the configuration message from the network node device as a broadcast message tagged with the reserved identification number,
  - receipt of the broadcast message by a communications device and configuration of the communications device on the basis of the identification number.